

## REMARKS

### Claims

Claim 1 has been amended and remains in the application.

Claims 3, 13 to 50 and 65-78 have been cancelled from the application.

Claims 79-82 have been added to the application.

### Claim Rejections – 35 U.S.C. 112

Claims 3, 19 to 32, 66 and 68 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter the applicant regards as the invention.

Claims 33 to 50 and 69 to 78 were also rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter the applicant regards as the invention.

Applicant has cancelled claims 3, 19-50, 66 and 68-78 in response to the Examiner's rejections.

### Claim Rejections – 35 U.S.C. 103

#### **Claims 1 to 2, 4 to 18, 65, 67 and 72-75**

Claims 1 to 2, 4 to 18, 65, 67 and 72-75 were rejected under 35 USC 103(a) as being unpatentable over U.S. Patent No. 5,231,063, of Fukumoto in view of U.S. Patent No. 5,700,438 of Miller.

Applicant has amended independent claim 1 to more clearly define the invention. In particular, claim 1 has been amended to explicitly limit the quantity of sulphuric acid claimed to be between about 0.1 to 4 percent by volume of the solution. Applicant submits that the present claims, are clearly allowable over Fukumoto and Miller, alone or in combination.

Fukumoto teaches a composite adsorbent, which can comprise an acid, a transition metal compound, water and an acid salt selected from the group consisting of acid salts of a m-aromatic amino acid and a p-aromatic amino acid.

At col. 2, lines 49-57, Fukumoto discloses that:

In this case, the amino group forming a salt with the acid added in an excess amount does not react with the transition metal compound. In other words, the second aspect of the present invention was realized by the addition of an excess acid which permits not only the removal of offensive odors originating from basic gases but also the coexistence of an aromatic amino acid with a transition metal compounds. [Emphasis added]

Consequently, Fukumoto explicitly teaches the addition of "excess acid". Fukumoto does not teach a sulphuric acid component in the range of between about 0.1 to 4 percent by volume.

As the Examiner has pointed out, Fukumoto discloses the sulphuric acid component in an amount of approximately 7.7 percent by weight of the solution. In direct comparison, the upper limit of the claimed range of the present application (4 percent by volume), converts to 6.5 percent by weight of the solution. The calculations are as follows:

4 percent by volume sulphuric acid in 100 ml of the claimed composition =  
4 ml

Weight of 4 ml =  $4 * 1.85$  ( specific gravity.)  
= 7.4 g

Weight of composition =  $100 \text{ ml} * 1.14$  (specific gravity)  
= 114 g

percent by weight of sulphuric acid =  $7.4/114$   
= 6.5 percent by weight

Consequently, the sulphuric acid component disclosed in Fukumoto would not fall within the volumetric range claimed in the present application.

Miller discloses a solution comprising a copper compound and a water soluble amine. Miller does not teach or suggest the addition of an amine to a composition comprising sulphuric acid nor a composition comprising a volume of sulphuric acid as claimed in the present application and therefore adds nothing to Fukumoto which would render the claims obvious.

**Claims 3, 19 to 64, 66, 68 to 71, 76 to 78**

Claims 3, 19 to 64, 66, 68 to 71, 76 to 78 were rejected under 35 USC 103(a) as being as being unpatentable over U.S. Patent No. 5,231,063, of Fukumoto in view of U.S. Patent No. 5,700,438 of Miller, further in view of website: <http://www.cheltec.com/products/products.htm>.

Independent claims 51 and 61 each claim a method for removing a sulphur compound or carbon dioxide from a fluid comprising the step of "preparing a solution according to any one of the above claims". The applicant has amended the claimed solution to require the quantity of the sulphuric acid component claimed to be between about 0.1 to 4 percent by volume of the solution. Applicant submits that the present claims, are clearly allowable over Fukumoto, Miller, website:<http://www.cheltec.com/products/products.htm>. alone or in combination.

As presented earlier, the composite adsorbent disclosed in Fukumoto does not teach a sulphuric acid component in the range of between about 0.1 to 4 percent by volume.

Miller discloses a process for preparing a solution comprising a copper compound and a water soluble amine. Website:<http://www.cheltec.com/products/products.htm> discloses Stabitol, a chelated product of sulphuric acid.

Miller and website:<http://www.cheltec.com/products/products.htm> add nothing to Fukumoto which would render the claimed invention obvious.

Thus, in view of the foregoing, applicant respectfully requests that the Examiner reconsider and withdraw the claim rejections under 35 USC 103(a) based on the various cited references.

**Conclusions**

In light of the foregoing, applicant submits that the claims are in a condition for allowance.

Respectfully submitted,



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